

WHAT IS CLAIMED IS:

ms. A1
1. A system for monitoring the behavior and environmental condition of a high precision electronic apparatus comprising:

a measuring device section including a plurality of sensors, a microphone and wind gage arranged around said electronic apparatus which is mounted on a vibration preventing mount for detecting environmental condition as analog data signals, and means for filtering and amplifying each of said analog data signals, and

a computer system section connected with said measuring device section having an A/D convertor for converting said analog data signals into digital data signals, a data collection circuit for collecting said digital data, means for recording and setting prescribed allowable environmental condition data, means for comparing said allowable environmental condition data with said digital data, means for producing warning signal if abnormalities between said allowable environmental condition data and said digital data obtained in operation of said apparatus, a Fast Fourier Transform (FFT) analyzer for converting said digital data so as to display as a graph on a monitor, a read-only memory for storing said digital data, means for calculating fluctuation of said magnetic flux data, ⁰³ means for calculating fluctuation of said vibration data, ⁰³ and means for storing said fluctuation of said magnetic flux and vibration data.

2. A system as claimed in claim 1 in which said sensors include a flux sensor for detecting the magnetic field in the environment of said apparatus, a first vibration sensor for detecting the vibration of said apparatus, a second vibration sensor for detecting the vibration of a mount of said apparatus and a temperature sensor for detecting the temperature in said environment.

3. A method for monitoring the behavior and environmental condition of a high precision electronic apparatus including steps for:

detecting the magnetic field, noise, temperature and wind speed in the

environment of said apparatus as analog data,

detecting the vibration according to the operation of said apparatus and the vibration of a mount of said apparatus as analog data,

filtering and amplifying said analog data,

converting each of said analog data into digital data,

collecting said digital data signals,

recording and setting allowable data of the operation of said apparatus in normal condition,

comparing said allowable data with said digital data,

displaying the comparative result of said allowable data with said digital data on a monitor, and

giving warning if the result of said comparison is abnormal.

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